IN THE CLAIMS:

That status and content of each claim follows.

1. (original) An ink delivery apparatus, comprising a pressure tuned rolling piston having

a distal end having a pressure responsive portion; and

a first convolute portion coupled to said pressure responsive portion, said first convolute portion being configured to provide a first level of resistance against a negative pressure.

2. (original) The apparatus of claim 1, wherein said pressure tuned rolling piston comprises an elastomeric material.

3. (original) The apparatus of claim 2, wherein said elastomeric material comprises EPDM/Butyl.

4. (original) The apparatus of claim 3, wherein said pressure tuned rolling piston comprises walls of substantially uniform thickness.

5. (original) The apparatus of claim 1, wherein said pressure responsive portion comprises a generally planar portion.

6. (original) The apparatus of claim 1, further comprising a second convolute portion, said convolute portion being configured to provide further resistance against said negative pressure.

7. (original) The apparatus of claim 6, wherein a perimeter of said second convolute portion is larger than a perimeter of said first convolute portion.

8. (original) The apparatus of claim 1, further comprising a fitment coupled to a proximal end of said piston.

9. (original) The apparatus of claim 8, wherein said fitment further comprises a fluid interconnect.

10. (withdrawn) The apparatus of claim 9, wherein said fluid interconnect is configured to fluidly couple a printing device and said piston.

11. (withdrawn) The apparatus of claim 10, wherein said piston provides an off-axis ink supply.

12. (withdrawn) The apparatus of claim 10, wherein said piston provides an on-axis ink supply.

13. (withdrawn) The apparatus of claim 8, wherein said fitment is configured to couple with a print head.

14. (original) An ink delivery assembly, comprising:

at least one pressure tuned rolling piston having

a distal end having a pressure responsive portion;

a first convolute portion supporting said pressure responsive portion, wherein said first convolute portion is configured to provide a first level of resistance against a negative pressure in said piston;

a second convolute portion adjacent said first convolute portion, wherein said second convolute portion is configured to provide further resistance again said negative pressure;

a proximal end opposite said distal end; and

a fitment coupled to said proximal end of said pressure tuned rolling piston.

15. (original) The assembly of claim 14, wherein a perimeter of said second convolute portion is larger than a perimeter of said first convolute portion.

16. (original) The assembly of claim 15, wherein said first convolute portion extends above said pressure responsive portion.

17. (original) The assembly of claim 14, wherein said first convolute portion includes a first aspect ratio and said second convolute portion includes a second aspect ratio, and wherein said first aspect ratio is larger than said second aspect ratio.

18. (original) The assembly of claim 17, wherein said first and second aspect ratios are selected based on predetermined operational specifications of a printing device.

19. (original) The assembly of claim 14, wherein said apparatus further comprises a plurality of pressure tuned rolling pistons.

20. (original) The assembly of claim 19, wherein said plurality of pressure tuned rolling pistons comprises three pressure tuned rolling pistons.

21. (original) The assembly of claim 19, wherein said plurality of pressure tuned rolling pistons provide a plurality of ink colors, each differently colored ink being separately contained within one of said plurality of pressure tuned rolling pistons.

22. (original) The assembly of claim 14, wherein said fitment further comprises a fluid interconnect.

23. (withdrawn) The assembly of claim 22, wherein said fluid interconnect is configured to fluidly couple a printing device and said pressure tuned rolling piston.

24. (withdrawn) The assembly of claim 14, wherein said pressure tuned rolling piston comprises an off-axis ink supply.

25. (withdrawn) The assembly of claim 14, wherein said pressure tuned rolling piston comprises an on-axis ink supply.

26. (withdrawn) The assembly of claim 14, wherein said fitment is configured to couple with a print head.

27. (withdrawn) A printing device, comprising:

at least one pressure tuned rolling piston having

a distal end with a pressure responsive portion; and

a first convolute portion supporting said pressure responsive portion, wherein said first convolute portion is configured to provide a first level of resistance against a negative pressure in said piston;

a second convolute portion adjacent to said first convolute portion, wherein said second convolute portion is configured to provide further resistance again said negative pressure;

a proximal end opposite said distal end;

a fitment coupled to said proximal end of said pressure tuned rolling piston; and

a print head coupled to said fitment.

28. (withdrawn) The device of claim 27, wherein said first convolute portion extends above said pressure responsive portion.

29. (withdrawn) The device of claim 27, wherein said first convolute portion has a first aspect ratio and said second convolute portion has a second aspect ratio, and wherein said first aspect ratio is larger than said second aspect ratio.

30. (withdrawn/currently amended) The ~~assembly~~ device of claim 29, wherein said first and second aspect ratios are selected based on predetermined operational specifications of said print head.

31. (withdrawn/currently amended) The ~~assembly~~ device of claim 27, wherein said apparatus further comprises a plurality of pressure tuned rolling pistons.

32. (withdrawn/currently amended) The ~~assembly~~ device of claim 31, wherein said plurality of pressure tuned rolling pistons comprises three pressure tuned rolling pistons.

33. (withdrawn/currently amended) The ~~assembly~~ device 31, wherein said plurality of pressure tuned rolling pistons provide a plurality of ink colors, each differently colored ink being separately contained within one of said plurality of pressure tuned rolling pistons.

34. (withdrawn/currently amended) The ~~assembly~~ device of claim 27, wherein said fitment further comprises a fluid interconnect.

35. (withdrawn/currently amended) The ~~assembly~~ device of claim 34, wherein said fluid interconnect is configured to fluidly couple said print head and said pressure tuned rolling piston.

36. (withdrawn/currently amended) The ~~assembly~~ device of claim 27, wherein said pressure tuned rolling pistons comprises an off-axis ink supply.

37. (withdrawn/currently amended) The ~~assembly~~ device of claim 27, wherein said pressure tuned rolling piston comprises an on-axis ink supply.

38. (withdrawn/currently amended) The ~~assembly~~ device of claim 27, wherein said fitment is further configured to connect directly with said print head.

39. (withdrawn) A method of delivering liquid ink, comprising:

providing ink from a pressure tuned rolling piston;

said ink pressure tuned rolling piston comprising first and second portions;

deflecting said first portion in response to a negative pressure;

deflecting said second portion in response to a pre-determined increase in said negative pressure.

40. (withdrawn) The method of claim 39, wherein said first portion comprises a first convolute portion.

41. (withdrawn) The method of claim 40, wherein said second portion comprises a second convolute portion.

42. (withdrawn) The method of claim 41, wherein said first convolute portion and said second convolute portion are substantially concentric.

44. (withdrawn) The method of claim 39, wherein said deflection of said first portion and said deflection of said second portion occur in substantially the same direction

44. (withdrawn) The method of claim 39, further comprising monitoring for a drop in said negative pressure indicating that said piston is operationally empty.

45. (withdrawn) The method of claim 44, further comprising, upon detection of said drop in negative pressure, indicating that said piston is operationally empty.

46. (withdrawn) The method of claim 45, wherein said indicating that said piston is operationally empty comprises notifying a human user that said piston is operationally empty.

47. (withdrawn) An ink delivery system, comprising:

supply means for supplying at least one ink to a print head, there being a negative pressure in said supply means; and

means for reducing a volume of said supply means in response to changes in said negative pressure;

wherein said means for reducing volume comprising means for resiliently resisting said negative pressure to maintain said negative pressure within a predetermined range.

48. (withdrawn) The system of claim 47, further comprising means for monitoring a level of said negative pressure.

49. (withdrawn) The system of claim 48, further comprising means for notifying a user of a sudden increase in said negative pressure indicating that said supply means are operationally empty.

50. (withdrawn) The system of claim 47, further comprising means for providing positive pressure in said supply means.

51. (withdrawn) The system of claim 47, wherein said supply means comprise a pressure tuned rolling piston.

52. (withdrawn) The system of claim 51, wherein said means for resiliently resisting said negative pressure comprise at least one convolute portion formed in said piston.